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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,558	03/10/2005	Servatius Hubertus Wilhelmus Notermans	VE.22	7452

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EXAMINER	
GEORGE, PATRICIA ANN	
ART UNIT	PAPER NUMBER
1794	
MAIL DATE	DELIVERY MODE
08/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,558	NOTERMANS, SERVATIUS HUBERTUS WILHELMUS	
	Examiner	Art Unit	
	Patricia A. George	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/9/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4,10, 11, and 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "effective amount" in claim 1 is a relative term which renders the claim indefinite. The term "effective amount" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention, because it is unclear as to what is an effective amount.

The term "substantial amount" in claim 4 is a relative term which renders the claim indefinite. The term "substantial amount" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention, because it is unclear as to what a substantial amount is.

The term "substantially, dead cells" in claims 10 and 15 is a relative term which renders the claim indefinite. The term " substantially, dead cells" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the

scope of the invention, because it is unclear as to what cell are dead, and how dead substantially dead is.

The term "essentially free of" in claims 11 and 16 is a relative term which renders the claim indefinite. The term "essentially free of" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention, because it is unclear as to how much the quantity of essentially free represents.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, and 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer in view of Mau, and Marquenie.

Fischer teaches a method for inhibiting and eliminating bacteria on meat and other foods (see column 1, lines 54-55), by exposing it to an effective amount of UV-light (see column 1, line 5).

Fischer does not teach UV-radiation is specifically used for edible mushrooms.

Mau teaches it is known to use UV-B radiation to increase the vitamin B concentration in mushrooms.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of UV-B radiation of food, as Fischer, to include the radiation of edible mushrooms, as applicants' claim, because Mau teaches it is known to be effective for raising the vitamin content of the food source which is a benefit to the consumer. See abstract.

Fischer teaches the tube used to produce the bactericidal rays will have elements that are such as to produce rays of any desired character, but fails to explicitly teach applicants' claimed range of 0.001 - 0.25 J/cm2.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of radiating food with UV-B, as Fischer, to include any desired range of radiation, including applicants' range of 0.001 - 0.25 J/cm2, because Fischer provides one of skill with a reasonable expectation of success by teaching that rays of any desired character may be used, because one of skill would have the knowledge to use experimental design methods to derive the optimal range for the desired results, as Fischer infers.

Marquenie teaches it is known to also use UV (UV-C) light, as in claim 4; in doses of 0.05-1.50 J/cm2, which overlaps and encompasses applicants' ranges of claims 1, 2, and 13, to inactivate microbial and fungal growth on food (i.e. reduce food damage). See abstract.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of UV exposure to sanitize food, as Fischer, to include the doses as applicants' claim, because Marguenie provides one of skill with a reasonable expectation of success, by teaching use of said doses are known to be effective for inactivate microbial and fungal growth to reduce food damage.

As to applicants' intended use, removal of bacteria to prevent (brown) spot formation on the surface of food, as in claims 1, and 12, since the modified invention of Fischer teaches a similar method, similar result will be obtained.

As to claim 3, the reference of Fischer provides an exposure of UV-light coming from a continuous light source, by teaching that the process does not need to be continuous, and also by providing specified electrical details of the UV light source. See column 1, lines 1-10; column 2, line 32 abridging column 3, to line 5; column 3, lines 55+, and finally column 4, lines 9-12.

Claims 8—11, and 14-16, are all written toward the product of a mushroom. The modified teaching of Fischer teaches mushrooms are known. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. See MPEP 2113.

Claim Rejections - 35 USC § 103

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer in view of Mau, and Marquenie, as applied to claims 1-4, and 8-16 above, further in view of Volk.

As to claim 6, the modified teaching of Fischer teaches,

Volk teaches edible mushrooms are known to come in the variety of of button mushrooms, which are known to have brown spots,. See reference.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of radiating edible mushrooms to remove brown spots, as Fischer, to include any variety, such as applicants' claimed button mushroom, because Volk teaches they are known to have brown spots, which provides one of skill with a reasonable expectation of success because Fischer provides a method that removes said spots, and Volk teaches the type claimed is known to have brown spots.

Claim Rejections - 35 USC § 103

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer in view of Mau and Marquenie, as applied to claims 1-4, and 8-16 above, further in view of Reed.

As to claim 7, the modified teaching of Fischer, fails to teach wherein the mushrooms are picked in a mechanical manner.

Reed teaches use of automatic mushroom harvesters. See abstract.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of sanitizing mushrooms, as the modified teaching of Fischer, to include a step of mechanically picking the mushrooms, as applicants' claim, because Reed provides one of skill with a reasonable expectation of success by teaching mechanical methods are effective for the picking mushrooms.

Claim Rejections - 35 USC § 103

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer in view of Mau and Marquenie, as applied to claims 1-4, and 8-16 above, further in view of Chen.

As to claim 5, the modified teaching of Fischer, is silent as to mushrooms are exposed to the UV-light at least prior to harvesting.

Chen teaches UV light is used to expose mushrooms to UV-light prior to harvesting. See Table 3.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of sanitizing mushrooms, as the modified teaching of Fischer, to include steps of growing the mushrooms, as applicants' claim, because Chen provides one of skill with a reasonable expectation of success by teaching it is effective to use UV light before mushrooms are harvested because Chen's teaching makes obvious that use of light for growing mushrooms is critical to producing a crop.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: USPN 7258882.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia A. George whose telephone number is (571) 272-5955. The examiner can normally be reached on Tue. - Fri. between 9:00 am and 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patricia A George
Examiner
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/KEITH D. HENDRICKS/
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